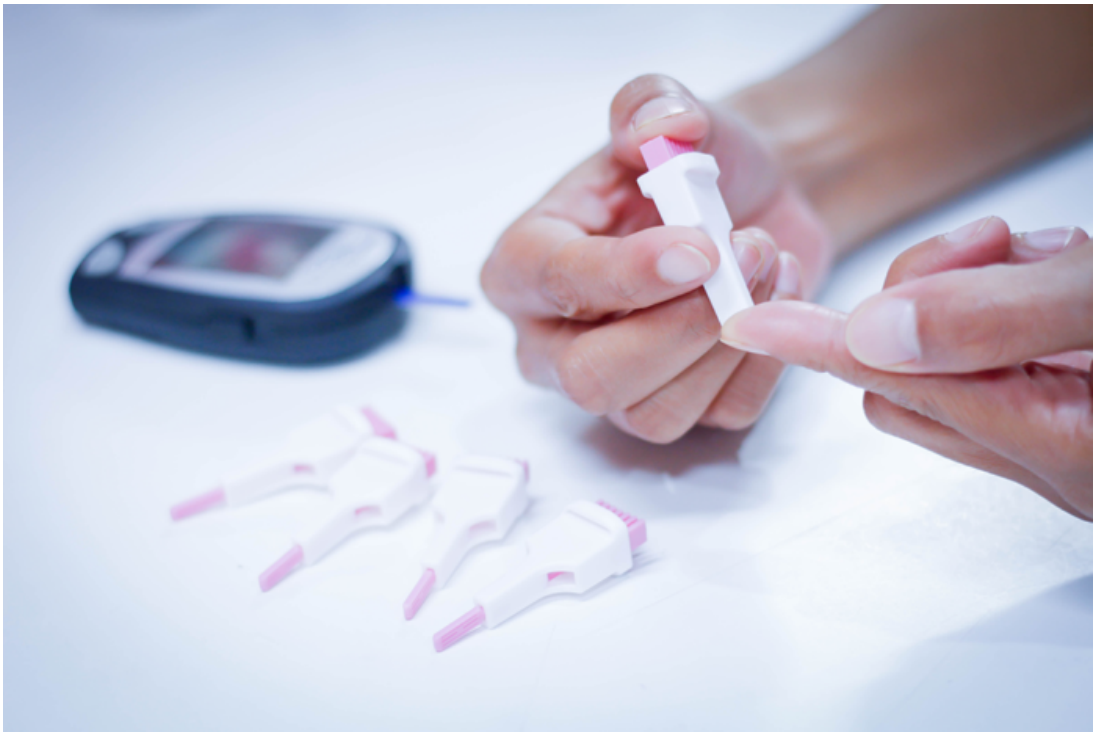
Better Dental Hygiene Linked to Improved Type 2 Diabetes Glycemic Levels

By **Today's RDH** - August 3, 2018



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A study published in The Journal of Clinical Periodontology revealed a potential link between Type 2 diabetes and dental hygiene. The results of the study will have a significant impact in the medical community, especially because Type 2 diabetes accounts for approximately 90% of all diabetes cases and impacts over 30 million Americans according to the Center for Disease Control.

A randomized clinical study conducted by researchers at the Faculty of Medicine and Health Sciences of the University of Buffalo demonstrated that patients who follow proper dental hygiene routines might experience an improvement in their Type 2 diabetes. The lead researcher, Miquel Viñas, is a professor of Microbiology at the University of Buffalo. Professors Elisabet Mauri Obradors, Albert Estrugo and Enric Jané from the university's Department of Odonto-Stomatology also contributed to the study. Additional research participants included Alexandra Merlos from the Department of Pathology and Experimental Therapy and José López López, a lecturer and medical director at the Dental Hospital of the University of Buffalo.

Type 2 Diabetes Causes and Symptoms

Insulin is a naturally occurring hormone secreted by the pancreas. Type 2 diabetes is a chronic condition which occurs when the body cannot metabolize blood sugar and becomes resistant to insulin. As a result, blood sugar levels can rise higher than normal. This can lead to serious health problems such as kidney and heart disease and other medical complications. People who are

obese, and not physically active, may be at risk for developing Type 2 diabetes. Common symptoms include fatigue, frequent urination (polyuria), weight loss, increased thirst (polydipsia) and hunger (polyphagia), blurry vision and thick darkened skin. However, some patients may never experience noticeable symptoms and do not discover they have the disease until their blood sugars are tested, and a physician diagnoses them.

Although Type 2 diabetes is incurable, it can go into remission when patients begin to eat healthy and work out to maintain their blood sugar levels. Some patients may need to take prescribed oral medications or receive insulin injections to help keep their target blood glucose at healthy levels.

The University of Buffalo Study

The researchers decided to evaluate the effect of non-surgical periodontal treatment on serum HbA1c (hemoglobin A1c or glycated hemoglobin) levels in patients who were diagnosed with Type 2 diabetes. Although previous research had shown a correlation between diabetes and periodontal diseases, the researchers noted there were limited studies about how periodontal disease can affect patients with diabetes.

Ninety patients with Type 2 diabetes participated in the single-masked, randomized clinical study. Over the duration of six months, patients received oral treatments and underwent a control of glycated hemoglobin. The researchers also evaluated the patients for certain types of oral bacteria that are linked to periodontitis. The treatment group received oral hygiene instructions and non-surgical periodontal therapy/SRP using both ultrasonic and hand instrumentation. Meanwhile, the study's control group received just oral hygiene instructions and had biofilm and calculus removed with only ultrasonic instrumentation. The researchers measured and analyzed the patient's plaque index, pocket depth, and gingival index at the beginning, middle, and end of the study.

The Results of the Study

Based on their findings, non-surgical periodontal treatment resulted in a better glycemic status for patients with type 2 diabetes. "The main conclusion of the study," José López López shared, "is that the non-surgical treatment of periodontitis improves the glycemic status and levels of glycated hemoglobin, and therefore proves the great importance of oral health in these patients." There was no noticeable improvement in the control group. In conclusion, the study revealed just how much oral health is closely tied to a patient's overall health.

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